CALIFORNIA OCEAN PROTECTION COUNCIL

Sea Level Rise and Extreme Events in California: How the State is Advancing Science-based Policies to Reduce Risks to Human Safety, Infrastructure, and the Ecosystem

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California Ocean Protection Council
18 January 2012

Outline

- Overview of California Ocean Protection Council
- Sea level rise policy recommendations
  - Context
  - Process
  - Content
- Next steps: Implementation

California Ocean Protection Council

OPC Members:

- **John Laird** Secretary for Natural Resources, Council Chair
- **Matt Rodriquez** Secretary for Environmental Protection
- **Gavin Newsom** Lt. Governor & Chair, State Lands Commission
- **Susan Golding** Public Member
- **Geraldine Knatz** Public Member
- **Fran Pavley** State Senator
- **Toni Atkins** State Assemblymember

State Coastal Conservancy's Executive Officer is the Council Secretary
California Ocean Science Trust's Executive Director is the Science Advisor

California Ocean Protection Council

- Provide Leadership
- Recommend Policy
- Coordinate and convene
- Invest in innovative projects
- Science integration

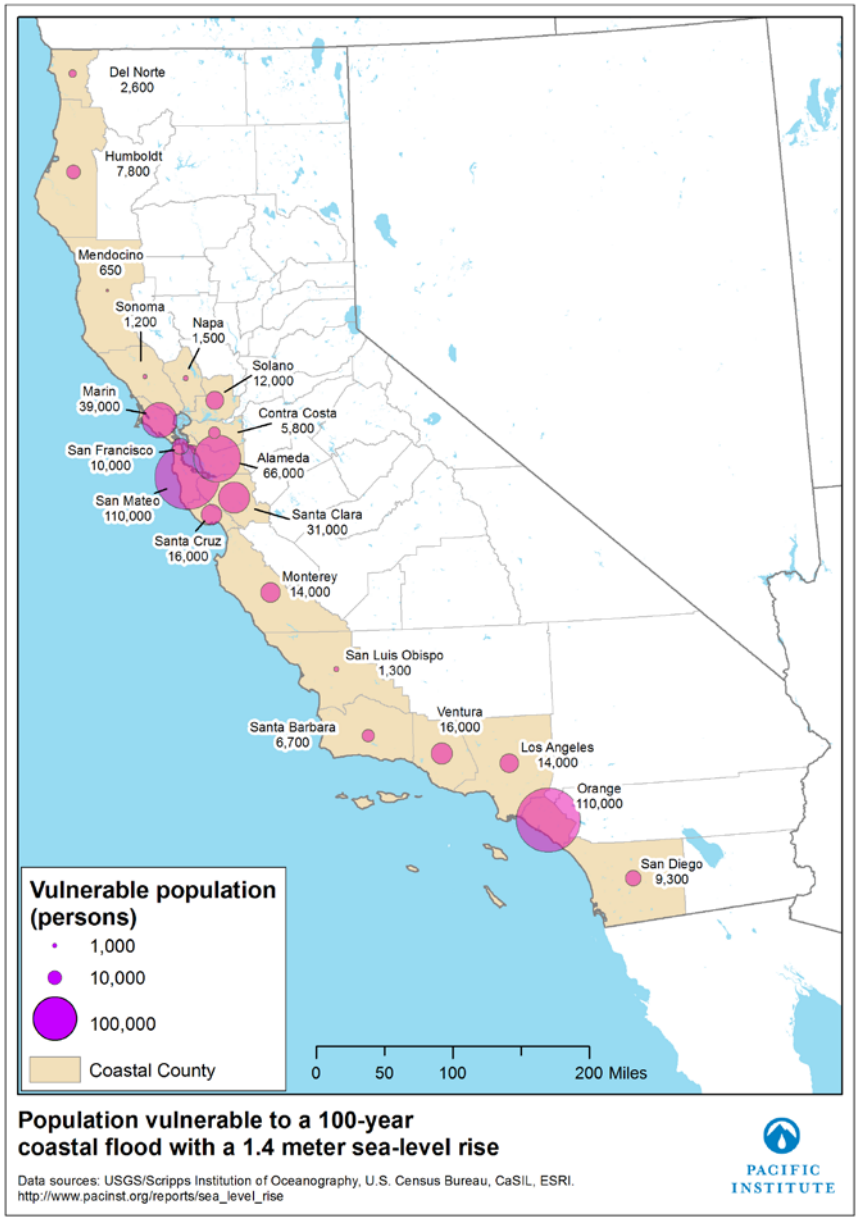
Context

Goal: Build resilience and reduce vulnerability of human and natural systems to unavoidable climate impacts

- We seek to predict, prepare for, and avoid these adverse impacts
- This requires:
  - Planning, policy, and political will
  - Investment in science and tools
  - Developing technology for adapting

Challenges

- Troubled financial times
- Multiple agencies with overlapping missions
- Scientific uncertainty
- Information transfer to local and regional decision makers



At Risk:

- 480,000 people
- $100 billion in property
- 3500 mi roads/highways
- 280 mi railways
- 28 wastewater treatment plants
- 30 coastal power plants
- 330 hazardous waste sites

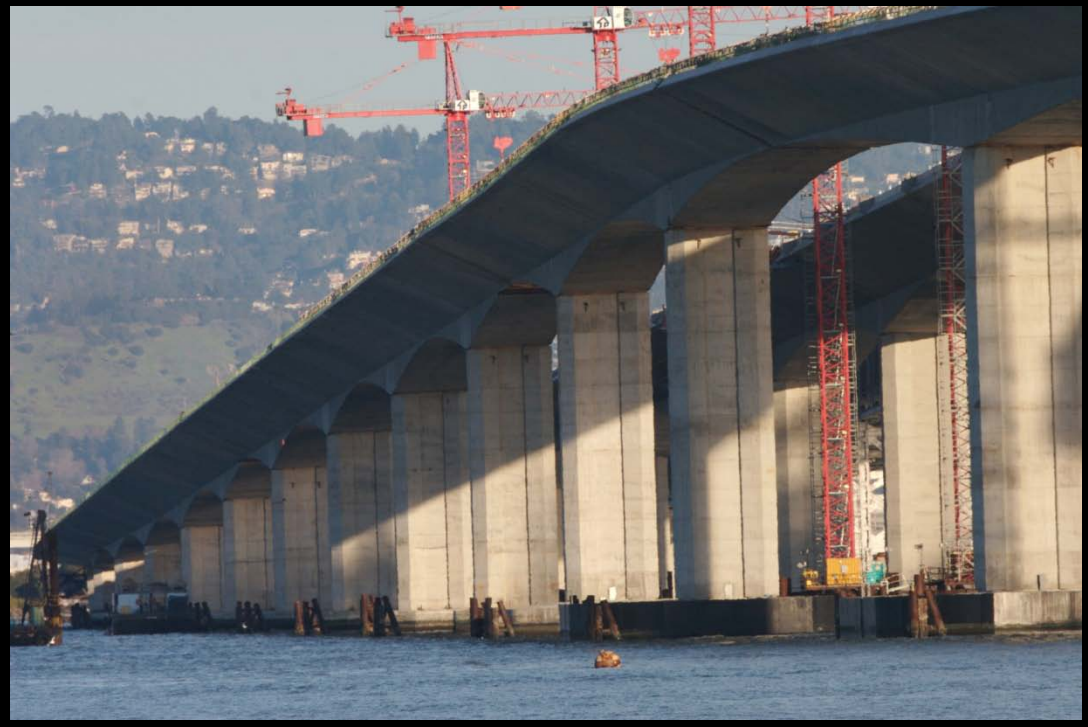
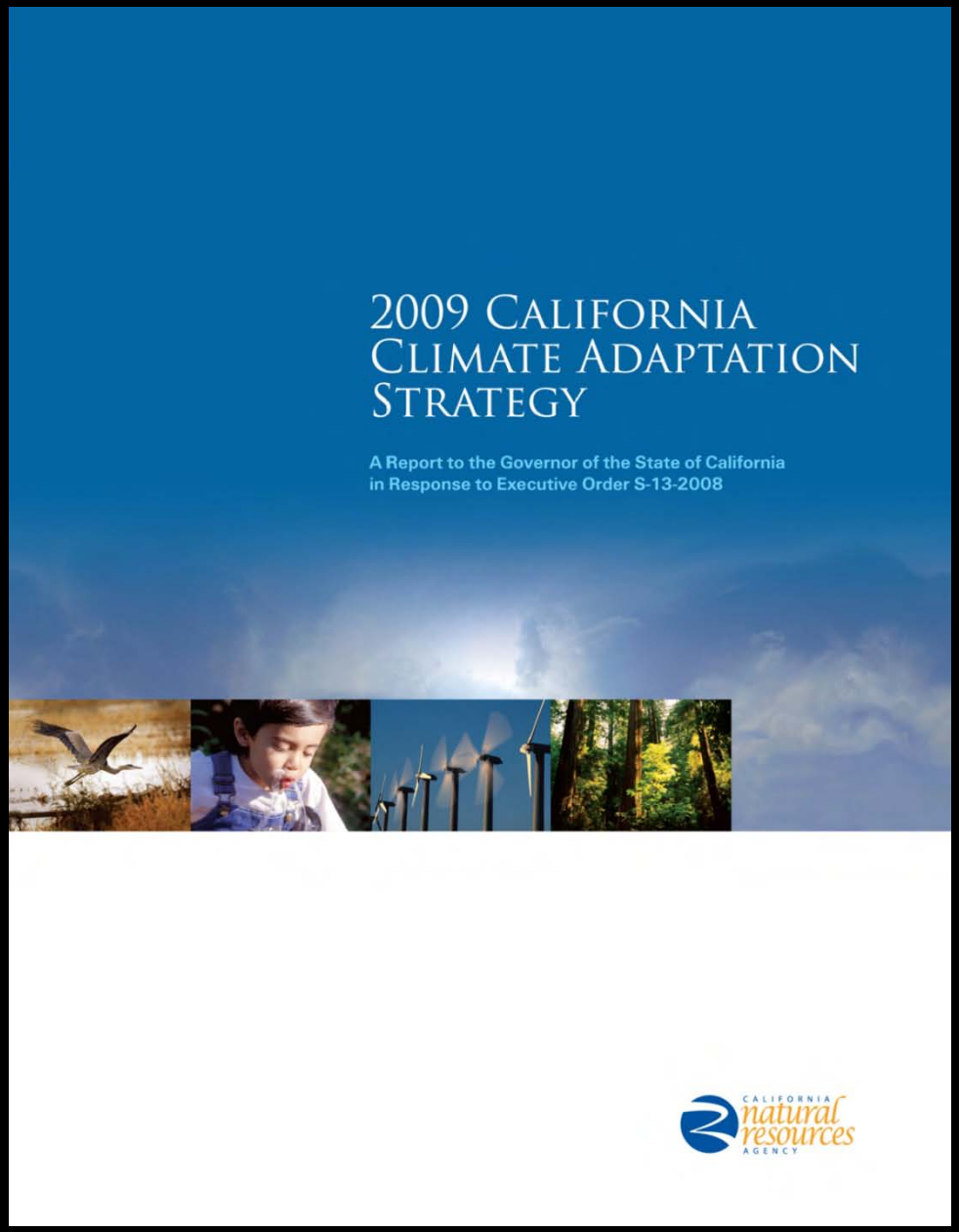


Photo by D. Revell – 2/23/08


Suisun Marsh
Petaluma River
Napa River
Grizzly Bay
San Pablo Bay /Carquinez Strait
Honker Bay
Central Bay North
Central Bay East Shore
Central Bay
Central Bay South
Central Bay West Shore
South Bay

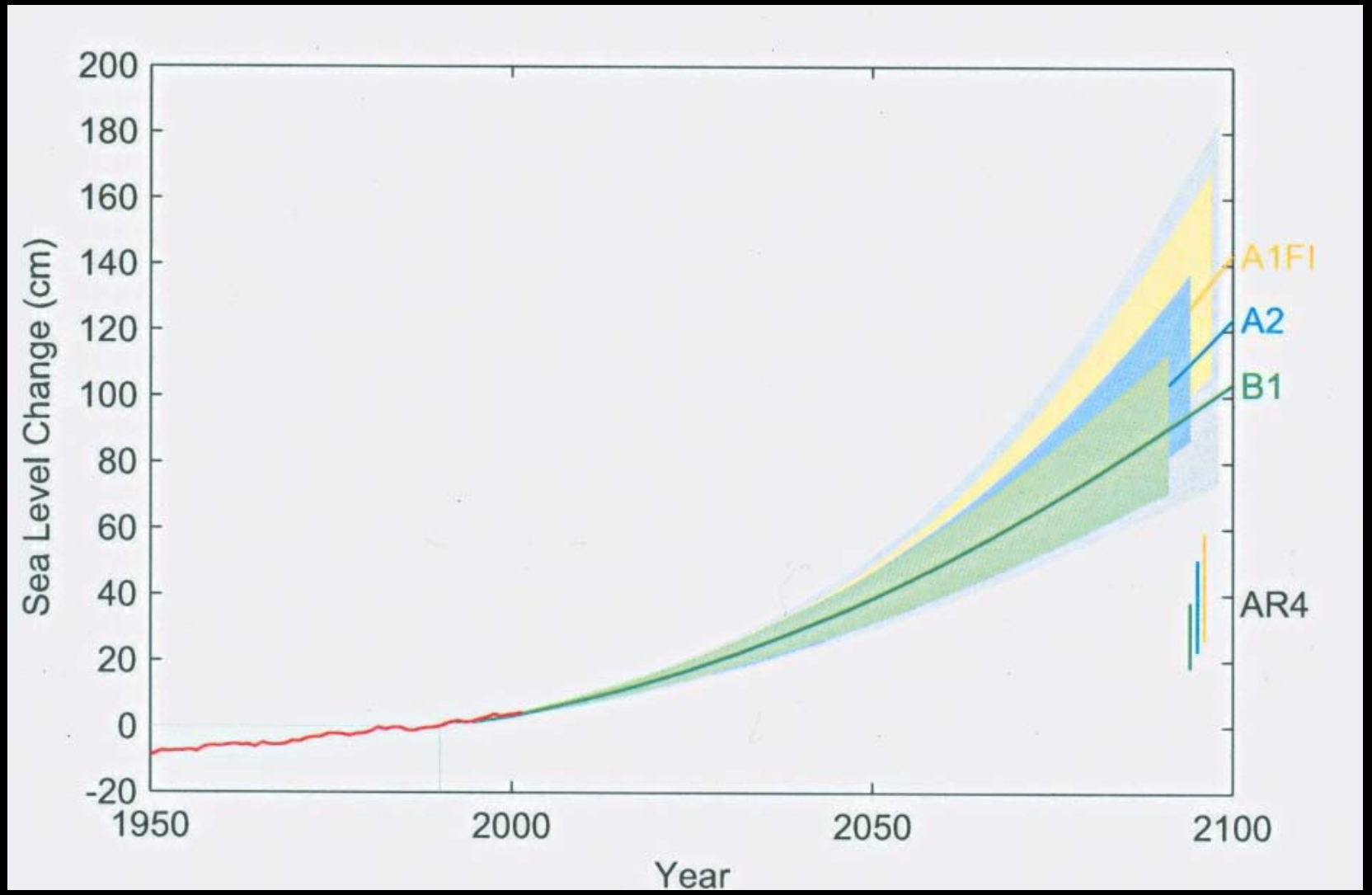
SFO Airport

Process


2009 California Climate Adaptation Strategy
A Report to the Governor of the State of California in Response to Executive Order S-13-2008
California natural resources Agency


California State
LANDS COMMISSION
California Department of
Toxic Substances Control
STATE OF CALIFORNIA
BUSINESS, TRANSPORTATION &
HOUSING AGENCY
DEPARTMENT OF
WATER RESOURCES
CALIFORNIA
COASTAL
COMMISSION
Caltrans
Coastal
Conservancy
CALIFORNIA
STATE PARKS
SINCE 1864
bcdc
San Francisco Bay
Conservation and Development Commission
California
Environmental
Protection Agency
CALIFORNIA
natural
resources
AGENCY
CALIFORNIA OCEAN PROTECTION COUNCIL
DEPARTMENT OF
FISH AND GAME
The Governor's Office
of Planning and Research
California Department of
Public Health
CDPH
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
STATE WATER RESOURCES CONTROL BOARD

Content



Vermeer and Rahmstorf
Proceedings of the National Academy of Sciences, December 2009

Sea-Level Rise Projections
Using 2000 As the Baseline Year

Year		Average of Models	Range of Models
2030		7 in (18 cm)	5-8 in (13-21 cm)
2050		14 in (36 cm)	10-17 in (26-43 cm)
2070	Low	23 in (59 cm)	17-27 in (43-70 cm)
	Medium	24 in (62 cm)	18-29 in (46-74 cm)
	High	27 in (69 cm)	20-32 in (51-81 cm)
2100	Low	40 in (101 cm)	31-50 in (78-128 cm)
	Medium	47 in (121 cm)	37-60 in (95-152 cm)
	High	55 in (140 cm)	43-69 in (110-176 cm)

CA Sea Level Rise Guidance Document

- Consider timeframe, adaptive capacity, and risk tolerance
- Coordinate with other state agencies and use the same SLR projections.
- Future SLR projections should not be based on linear extrapolation of historic sea level observations.
- Consider trends in relative local mean sea level.
- Consider storms and other extreme events.

Next Steps

- State agencies adopt policies and change funding guidelines
- Complete vulnerability assessment
- Receive National Research Council study
- Deliver information directly to local decision makers

Thank you

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Documents available at www.opc.ca.gov